Name:

at1110paper_practice_test (v33)

1. Expand the following expression into standard form.

$$(3x + 7)(5x - 2)$$

$15x^2 - 6x + 35x - 14$

$15x^2 + 29x - 14$

2. Solve the equation.

$$(8x - 7)(4x - 5) = 0$$

$x = \frac{7}{8}$ $x = \frac{5}{4}$

3. Expand the following expression into standard form.

$$(8x + 9)(8x - 9)$$

$64x^2 - 72x + 72x - 81$

$64x^2 - 81$

4. Expand the following expression into standard form.

$$(2x - 3)^2$$

$4x^2 - 6x - 6x + 9$

$4x^2 - 12x + 9$

5. Factor the expression.

$$x^2 - 2x - 24$$

$$(x-6)(x+4)$$

6. Factor the expression.

$$81x^2 - 49$$

$$(9x-7)(9x+7)$$

7. Solve the equation with factoring by grouping.

$$10x^2 - 15x + 8x - 12 \;=\; 0$$

$$(5x+4)(2x-3) = 0$$
$$x = \frac{-4}{5} \qquad x = \frac{3}{2}$$

8. Solve the equation.

$$10x^2 - 24x + 30 \;=\; 5x^2 + 3x + 2$$

$$5x^2 - 27x + 28 = 0$$
$$(5x-7)(x-4) = 0$$
$$x = \frac{7}{5} \qquad x = 4$$